

Title (en)
MANUFACTURING PROCESS OF A POROUS COMPONENT AND A POROUS COMPONENT

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES PORÖSEN BAUTEILS UND PORÖSES BAUTEIL

Title (fr)
PROCÉDÉ DE FABRICATION D'UN COMPOSANT POREUX ET COMPOSANT POREUX

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Application
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Abstract (en)
This invention refers to a process for manufacturing a porous component (1) to be used as flow restrictor, whose basic foundations include the metal injection molding process, which has been enhanced in order to obtain a component with open porosity homogeneously distributed. Such flow restrictor comprises at least one porous component (1), having at least one restricting portion with some porosity dimensioned to regulate the flow of gas that flows to an aerostatic bearing of a mechanical system, such as an hermetic compressor comprised by a piston at motion in relation to a cylinder, for instance. This invention also refers to the use and production of a porous component (1) obtained by powder injection molding or powder injection molding of multi-material parts, the porous component being (1) a flow restrictor with a layer of dense material; that is, with no open pores, on the outer surface parallel to the flow direction in which the flow through the porous component (1) shall occur, allowing it to be inserted into the bearing system without interfering with the porous structure of the core (dual porosity). The invention also refers to the sealing existing between the porous component (1) and its housing.

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